

Claims

30

- 5 1. A laser system comprising:
 - a laser device for emitting laser radiation; and a delivery device adapted to connect, in use, to said laser device for delivering said laser radiation; wherein, in use, said laser device receives

- 15 -

- 10 information from said delivery device.
 - 2. A laser system as claimed in claim 1, wherein said delivery device is an optical fibre.
- 15 3. A laser system as claimed in claim 1 or 2, wherein said laser device includes a detector for detecting the connection of said delivery device.
- 4. A laser system as claimed in claim 3, wherein, in use, said laser device interrogates said delivery device after said detector indicates that said delivery device has been connected to said laser device.
- 5. A laser system as claimed in claim 1, 2 or 3, wherein said laser device interrogates said delivery device.
 - 6. A laser system as claimed in any preceding claim, wherein said laser device interrogates said delivery device in a contactless manner.



20



A laser system as claimed in any preceding claim, wherein said information is encoded on, embedded within or otherwise stored with said delivery device.

- 16 -

- A laser system as claimed in any preceding claim, wherein said information indicates the type of said delivery device. ...
- 9. A laser system as claimed in any preceding claim, 10 wherein said information indicates the state, usage, expiry date, age or model of said delivery device.
- 10. A laser system as claimed in any preceding claim, wherein said information indicates the intended use or 15 function of said delivery device.
 - A laser system as claimed in any preceding claim, wherein said delivery device comprises an AC or RF identification tag or transponder.
 - 12. A laser system as claimed in claim 11, wherein said AC or RF identification tag or transponder is a read only device.
- 25 A laser system as claimed in claim 11, wherein said AC or RF identification tag or transponder is a read/write device.
- A laser system as claimed in any of claims 11, 12 or 13, wherein said laser device comprises an AC or RF identification reader for reading said AC or RF identification tag or transponder.



5

15

25

- 17 -

15. A laser system as claimed in claim 14, wherein, in use, said delivery device transmits or returns a signal to said AC or RF identification reader.

16. A laser system as claimed in any preceding claim, wherein said delivery device receives, in use, a power or electromagnetic pulse.

10 17. A laser system as claimed in any preceding claim, wherein said delivery device receives, in use, AC or RF energy, stores said energy, and transmits back to said laser device data or information using said stored energy.

18. A laser system as claimed in any of claims 1-10, wherein said delivery device comprises a barcode.

- 19. A laser system as claimed in claim 18, wherein said 20 laser device comprises a barcode reader.
 - 20. A laser system as claimed in any of claims 1-10, wherein said delivery device comprises a colour identification tag.

21. A laser system as claimed in claim 20, wherein said laser device comprises means for identifying said colour identification tag.

30 22. A laser system as claimed in any preceding claim, wherein said laser device comprises a SMA-905 connector for receiving an optical fibre.



- 18 -

- 23. A laser system as claimed in any preceding claim, wherein in a mode of operation said laser device prevents operation with said delivery device upon receiving information from said delivery device.
- 24. A laser system as claimed in any preceding claim, wherein in a mode of operation said laser device prevents operation with said delivery device if said
 10 laser device does not receive any information from said delivery device.
- 25. A laser system as claimed in any preceding claim, wherein said laser device prevents operation if a delivery device known per se is connected to said laser device.
- 26. A laser system as claimed in claim 25, wherein the delivery device known per se does not transmit
 20 information to said laser device.
- 27. A laser system as claimed in any preceding claim, wherein in a mode of operation said laser device prevents operation with said delivery device if said
 25 laser device receives information from said delivery device and wherein said information indicates a predetermined parameter.
- 28. A laser system as claimed in claim 27, wherein said 30 parameter indicates the usage of the delivery device.

- 19 -

- 29. A laser system as claimed in claim 27 or 28, wherein said parameter indicates the sterility of the delivery device.
- 5 30. A laser system as claimed in claim 27, 28 or 29, wherein said parameter indicates the type of the delivery device.
- 31. A laser system as claimed in any of claims 27-30, wherein said parameter indicates an expiry date of the delivery device.
- 32. A laser system as claimed in any preceding claim, wherein said laser device may be enabled and/or disabled remotely.
 - 33. A laser system as claimed in claim 32, wherein said laser device may be enabled and/or disabled via a telephone link, serial interface or via the internet.

20

34. A laser system as claimed in any preceding claim, wherein said laser device further comprises a visual display, said display being adapted to provide the user with information received from said delivery device.

25

30

35. A laser system as claimed in any preceding claim, wherein in a mode of operation said laser device receives information from said delivery device and sets the power of laser radiation to be transmitted to said delivery device.



- 20 -

- 36. A laser system as claimed in any preceding claim, wherein in a mode of operation said laser device receives information from said delivery device and sets the pulse width of laser radiation to be transmitted to said delivery device.
- 37. A laser system as claimed in any preceding claim, wherein in a mode of operation said laser device receives information from said delivery device and sets the interval between pulses of laser radiation to be
- transmitted to said delivery device.

 38. A laser system as claimed in any preceding claim,
 - wherein in a mode of operation said laser device receives information from said delivery device and sets
- receives information from said delivery device and sets the duration that laser radiation is to be transmitted to said delivery device.
- 39. An optical fibre assembly comprising an AC or RF identification tag or transponder.
 - 40. A laser device comprising a reader for reading an AC or RF identification tag or transponder on an optical fibre assembly.

25

10

41. A laser system comprising:

an optical fibre assembly comprising an AC or RF identification tag or transponder; and

- a laser device comprising a reader for reading said 30 AC or RF identification tag or transponder.
 - 42. An optical fibre comprising a barcode.

- 21 -

- 43. A laser device comprising a barcode reader for reading a barcode on an optical fibre.
- 5 44. A laser system comprising:

 an optical fibre comprising a barcode; and
 a laser device comprising a barcode reader for
 reading said barcode.
- 10 45. A laser system comprising:

 a laser device for emitting laser radiation; and
 a delivery device adapted to connect, in use, to
 said laser device for delivering said laser radiation,
 said delivery device comprising a read/write device for
 storing information;

wherein, in use, said laser device updates said information on said read/write device.

- 46. A medical laser device comprising a laser system as 20 claimed in any of claims 1-38, 41, 44 or 45.
 - 47. A method of operating a laser system comprising the steps of:

connecting a delivery device to said laser device; wherein said laser device receives information from said delivery device.

48. A method as claimed in claim 47, wherein said delivery device comprises an optical fibre.

providing a laser device; and

- 22 -

- 49. A method as claimed in claim 47 or 48, wherein said laser device interrogates said delivery device.
- 50. A method of operating a laser system comprising:
 5 providing a laser device and a delivery device
 wherein said laser device interrogates said delivery
 device.
- 51. A method as claimed in claim 50, wherein said laser device detects the attachment of said delivery device prior to interrogating said delivery device.
 - 52. A method of operating a laser system comprising the steps of:
- providing a laser device; and attaching a delivery device to said laser device; wherein said laser system detects the attachment of said delivery device and interrogates said delivery device upon detection of the attachment of said delivery device.
 - 53. A method as claimed in any of claims 47-52, wherein said laser device enables operation of said laser system upon receiving information from said delivery device.
 - 54. A method as claimed in any of claims 47-53, wherein said laser device receives information from said delivery device and displays said information for the user.
 - 55. A method as claimed in any of claims 47-54, wherein said laser device receives information from said

2.5





- 23 -

delivery device indicating the usage of the delivery device.

- 56. A method as claimed in any of claims 47-55, wherein
 5 said laser device receives information from said
 delivery device indicating the sterility of the delivery device.
- 57. A method as claimed in any of claims 47-56, wherein said laser device receives information from said delivery device indicating the type of the delivery device.
- 58. A method as claimed in any of claims 47-57, wherein said laser device receives information from said delivery device indicating the expiry date of the delivery device.
- 59. A method as claimed in any of claims 47-58, wherein in a mode of operation said laser device is enabled and/or disabled remotely.
 - 60. A method of operating a laser system comprising the steps of:
- providing a laser device;
 attaching a delivery device to a laser device; and
 transmitting a power pulse to said delivery device;
 wherein said delivery device receives said pulse,
 stores said pulse and transmits data to said laser
 device using said pulse.





- 24 -

- 61. A method as claimed in claim 60, wherein said pulse is a pulse of AC or RF energy.
- 62. A method as claimed in any of claims 47-61, wherein said laser device receives information from said delivery device and configures the operation of said laser device.